

What is claimed is:

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1. A X-ray film cassette device comprising in combination: a rectangular cartridge body having a front wall, a pair of side walls and a back wall; a rectangular cover hinged at one side thereof to the back wall of said body by means of a pair of hinge means; a pair of latch means provided at one side of said cover opposite to the hinged side, said latch means being manually operable to be moved from a latching position to a released position; a pair of slots provided in the front wall of the body to be engaged with said latch means of the cover; at least two
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- imaging plates for recording an image generated by an x-ray source; said at least two imaging plates overlapping so as to prevent the loss of diagnostic information.
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2. The cassette of claim 1, wherein said at least two imaging plates can be processed by a computed radiography reader without manually removing imaging plates from cassette.
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3. The cassette of claim 1, wherein said system works in a FCR 5000 CR Reader imaging device.
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4. The cassette of claim 1, further comprising indicia marks on said imaging plates such that said imaging plates can be automatically aligned.
5. The cassette of claim 1, wherein said at least two imaging plates are separated by a 'Z' fold of material sufficient to prevent said overlapping image plates from coming into direct contact with each other.

6. The cassette of claim 1, wherein said imaging plates are 14" x 17" in dimension.

7. X-ray film that can be used in the cassette device of claim 1.

5 8. A photostimulable phosphor sheet that can be used in the cassette device of claim 1

9. The x-ray images generated by the use of the cassette device of claim 1.

10 10. The cassette of claim 1, wherein said system works in any Fuji CR Reader imaging device.

11. A X-ray cassette device comprising in combination: a rectangular cartridge body having a front wall, a pair of side walls and a back wall; a rectangular cover hinged at one side thereof to the back wall of said body by means of a pair of hinge means; a pair of latch means provided at one side of said cover opposite to the hinged side, said latch means being manually operable to be moved from a latching position to a released position; a pair of slots provided in the front wall of the body to be engaged with said latch means of the cover; at least two imaging plates for recording an image generated by an x-ray source; on a photostimulable phosphor sheet said at least two imaging plates overlapping so as to prevent the loss of diagnostic information.

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12. The cassette of claim 11, wherein said at least two imaging plates can be processed by a computed radiography reader without manually removing imaging plates from cassette.

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13. The cassette of claim 11, wherein said system works in a FCR 5000 CR Reader imaging device.

- 5 14. The cassette of claim 11, further comprising indicia marks on said imaging plates such that said imaging plates can be automatically aligned.
- 15 15. The cassette of claim 11, wherein said at least two imaging plates are separated by a "Z" fold of material sufficient to prevent said overlapping image plates from coming into direct contact with each other.
16. The cassette of claim 11, wherein said imaging plates are 14" x 17" in dimension.
- 10 17. X-ray film that can be used in the cassette device of claim 11.
18. A photostimulable phosphor sheet that can be used in the cassette device of claim 11.
- 15 19. The x-ray images generated by the use of the cassette device of claim 11.
20. The cassette of claim 11, wherein said system works in any Fuji CR Reader imaging device.